

**CLAIMS**

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

- 1        1. A computer implemented system analysis and design method for use in a  
2        complex business environment characterized by a set of tightly linked  
3        business processes comprising the steps of:  
4                capturing in a framework a world view of a business decision and/or a  
5        business application software system, wherein a world view is defined by  
6        business objectives, constraints, assumptions, data, and underlying model used  
7        in business decision and/or the application software system; and  
8                using the framework to specify and document each business decision  
9        and/or business application software system in the complex environment.
- 1        2. The computer implemented system analysis and design method recited in  
2        claim 1, wherein a BDML (Business Decision Markup Language) is used to  
3        implement the framework for specifying the world view of a business decision  
4        and/or a business application software system.
- 1        3. The computer implemented system analysis and design method recited in  
2        claim 2, wherein the BDML is used for the creation and maintenance of a  
3        knowledge base of business decisions and processes within an organization.
- 1        4. The computer implemented system analysis and design method recited in  
2        claim 2, wherein the BDML is used for the publication of the functional  
3        specification of a business application software system, the world view of a  
4        technical research paper in the area of business decisions and its findings.

1 5. The computer implemented system analysis and design method recited in  
2 claim 2, wherein the BDML is machine-readable by a BDML processor as  
3 well as readable by human users so that it can be used for systematic  
4 documentation of business objectives, constraints, assumptions, data, and  
5 underlying model in business processes and/or application software systems.

1 6. The computer implemented system analysis and design method recited in  
2 claim 2, wherein the BDML supports XML (eXtensible Markup Language)  
3 based standards for business to business exchanges.

1 7. A BDML (Business Decision Markup Language) processor comprising:  
2 a syntax processor that checks the syntax correctness and syntax  
3 consistency within an individual and between different documents written in  
4 BDML;  
5 a logic processor that checks logical consistency between different  
6 documents written in BDML, in terms of the business objectives, constraints,  
7 assumptions, data, and underlying model among the different documents; and  
8 a knowledge-based processor including a knowledge base of business  
9 decisions, common choices for their decision support models and  
10 commercially available decision support systems, the knowledge-based  
11 processor providing suggestions for a set of BDML documents to improve  
12 consistency using the knowledge base.